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NOTICE OF ALLOWANCE AND FEE(S) DUE

26574 7590 03/15/2002

SCHIFF HARDIN & WAITE  
6600 SEARS TOWER  
233 S WACKER DR  
CHICAGO, IL 60606-6473

EXAMINER  
SUMMONS, BARBARA  
ART UNIT CLASS-SUBCLASS  
2817 333-193000  
DATE MAILED: 03/15/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,622	04/27/2001	Thomas Bauer	P-01.0105	9424

TITLE OF INVENTION: SURFACE ACOUSTIC WAVE ARRANGEMENT WITH A JUNCTION REGION BETWEEN SURFACE ACOUSTIC WAVE STRUCTURES HAVING STRUCTURES HAVING A DECREASING THEN INCREASING FINGER PERIOD

TOTAL CLAIMS	APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
15	nonprovisional	NO	\$1280	\$0	\$1280	06/17/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

Complete and mail this form, together with applicable fee(s), to:

**Box ISSUE FEE**  
**Assistant Commissioner for Patents**  
**Washington, D.C. 20231**

**MAILING INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

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Note: The certificate of mailing below can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

**Certificate of Mailing**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

(Depositor's name)

(Signature)

(Date)

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15	nonprovisional	NO	\$1280	\$0	\$1280	06/17/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
SUMMONS, BARBARA	2817	333-193000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT** (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent)  individual  corporation or other private group entity  government

4a. The following fee(s) are enclosed:

Issue Fee  
 Publication Fee  
 Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s):

A check in the amount of the fee(s) is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Commissioner is hereby authorized to charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

The COMMISSIONER OF PATENTS AND TRADEMARKS is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, United States Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington, D.C. 20231

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**TRANSMIT THIS FORM WITH FEE(S)**



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		ART UNIT	PAPER NUMBER	
			2817	
DATE MAILED: 03/15/2002				

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**  
(application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (<http://pair.uspto.gov>)



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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT PAPER NUMBER

6

DATE MAILED:

This is a communication from the examiner in charge of this application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

### NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

This communication is responsive to the Preliminary Amdt & Proposed Draw. Corr. Received 4/27/01.

The allowed claim(s) is/are 16 - 30.

The drawings filed on \_\_\_\_\_ are acceptable as formal drawings.

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

All  Some\*  None of the:

Certified copies of the priority documents have been received.

Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE FOR SUBMITTING NEW FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION. This three-month period for complying with the REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL is extendable under 37 CFR 1.136(a).

Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

Applicant MUST submit NEW FORMAL DRAWINGS

because the originally filed drawings were declared by applicant to be informal.

including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. \_\_\_\_\_.

including changes required by the proposed drawing correction filed on 4/27/01, which has been approved by the examiner.

including changes required by the attached Examiner's Amendment/Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings.

Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this notice should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

Interview Summary, PTO-413

Examiner's Amendment/Comment

Examiner's Comment Regarding Requirement for the Deposit of Biological Material

Examiner's Statement of Reasons for Allowance

Art Unit: 2817

**EXAMINER'S AMENDMENT/REASONS FOR ALLOWANCE/COMMENTS**

***Examiner's Amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. James D. Hobart on March 12, 2002.

2. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figs. 1, 2, and 4(a) need to be labeled "Prior Art". Regarding Figs. 1 and 2, see e.g. the specification at page 6, lines 34-37, and regarding Fig. 4(a), see e.g. the specification at page 8, lns. 25-27. Copies of Figs. 1, 2, and 4(a) with the agreed upon changes marked in red ink are attached. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

***Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowance:  
Regarding the prior art of record cited on the PCT search report, the reasons for allowance are as stated in the provided translation of the International Preliminary Examination

Art Unit: 2817

Report. Regarding the other prior art references cited herein by the Examiner (see list below), whereas the prior art teaches varying the finger period within surface acoustic wave (SAW) structures, it fails to teach a “junction region” from a first to a second SAW structure with “the local finger period of the first surface acoustic wave structure initially decreasing continuously in the junction region and finally rising continuously again until the finger period of the second surface acoustic wave structure is reached” (see claim 16, the last 5 lines thereof).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

#### *Comments*

##### **The Specification and Claims:**

4. It should be noted that the following changes have been made globally by the Examiner (i.e. by Informal Examiner’s Amendment) to correct obvious translation-related typographical errors:

On page 2 of the specification, on each of lines 17 and 18, note that “red” has been changed to --rot--.

The same change has been made at page 4, line 32; page 10, line 1; and in claim 26, on line 2 (both occurrences).

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Apparently "rot" translates from German to English as --red--. However, where "rot" is used in a piezoelectric substrate specification, for example, "42° rot YX-LiTaO<sub>3</sub>" (see the original German PCT application at page 2, line 16), it is indicating a "rotation" angle which should remain as "rot" and not be translated literally.

**The Title:**

5. It should be noted that the Title of the Invention has been changed to:

--SURFACE ACOUSTIC WAVE ARRANGEMENT WITH A JUNCTION  
REGION BETWEEN SURFACE ACOUSTIC WAVE STRUCTURES  
HAVING A DECREASING THEN INCREASING FINGER PERIOD--

(see e.g. the last 5 lines of claim 16).

**The Prior Art:**

6. The references cited on the PCT search report have been included on the accompanying form PTO-892 to indicate that they have been considered. Copies are not being sent to Applicants.

7. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

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Kato et al. U.S. 5,256,927 [see e.g. Fig. 1(a)]; Lewis et al. GB 2 160 048 (see e.g. Figs. 5A, 5B, and 5C); and Yamanouchi et al. EP 0 579 871 (see Fig. 1) each disclose SAW transducers with increasing or decreasing periods.

Fleischmann DE 41 26 335 discloses a SAW resonator with a "continuously changing geometry period" in the edge region of the reflectors (see the abstract, the last six lines thereof).

Matsuda et al. JP 11-88112 discloses a SAW resonator with the period of the reflectors varying "at random" (see the abstract, the last five lines thereof and Fig. 1).

Takagi et al. JP 10-335966 discloses a SAW transducer with the finger period in the center being different from the finger period of both sides (see Fig. 1 and the abstract, the last eight lines thereof).

8. Any inquiry concerning this communication should be directed to Barbara Summons at telephone number (703) 308-4947, FAX no. (703) 308-7724, receptionist's no. (703) 308-0956.

March 12, 2002 : BSummons  
(1 attachment)  
drawings



Robert Pascal  
Supervisory Patent Examiner  
Technology Center 2800

PRINT OF DRAWING  
AS ORIGINALLY

Attachment 1

09/830622

Corrections to Figs 1, 2 + 4(a)

333  
195

1/3

Summons  
Approved  
3/12/02  
BS

FIG 1  
PRIOR ART

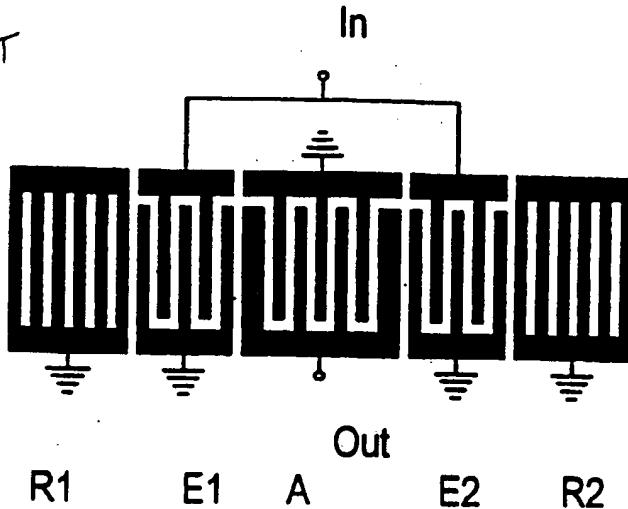
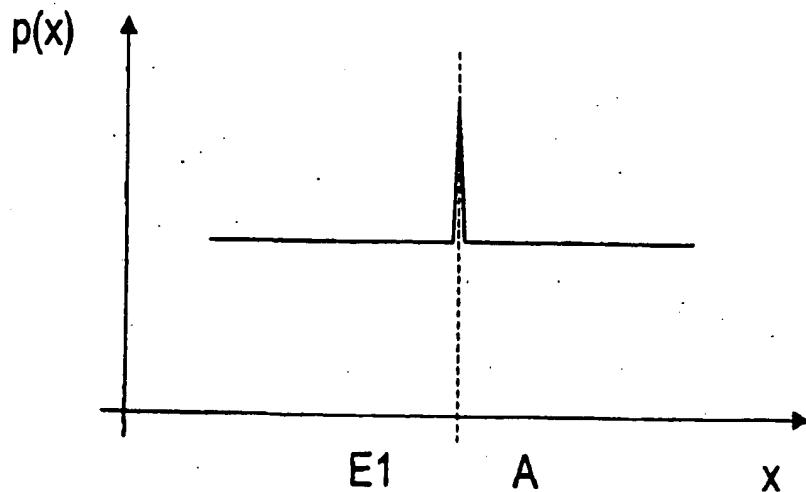


FIG 2 PRIOR ART



09/830622

2/3

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3/12/02  
BS

FIG 3

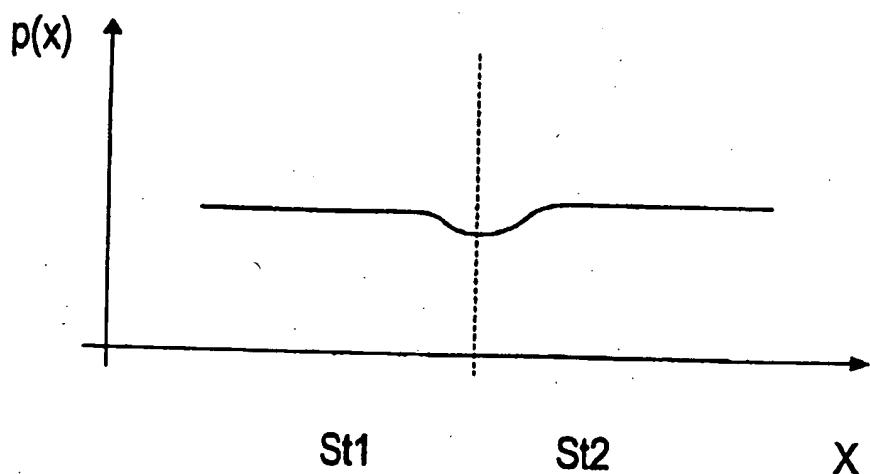
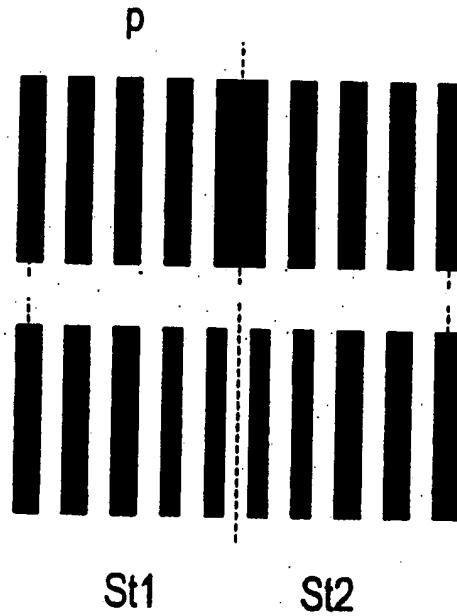


FIG 4

FIG 4 a)  
PRIOR ART

FIG 4 b)



X